

(12) UK Patent Application (19) GB (11) 2 386 460 (13) A

(43) Date of A Publication 17.09.2003

(21) Application No 0201341.5

(22) Date of Filing 22.01.2002

(71) Applicant(s)

James Males
7 Stanbury Ave, WATFORD, Herts,
WD17 3HW, United Kingdom

(72) Inventor(s)

James Males

(74) Agent and/or Address for Service

James Males
7 Stanbury Ave, WATFORD, Herts,
WD17 3HW, United Kingdom

(51) INT CL⁷
G09F 13/18

(52) UK CL (Edition V)
G5C CEK

(56) Documents Cited

GB 2382212 A GB 2365961 A
GB 2362022 A GB 2316216 A
DE 299226170 U JP 110105488 A
JP 080146895 A

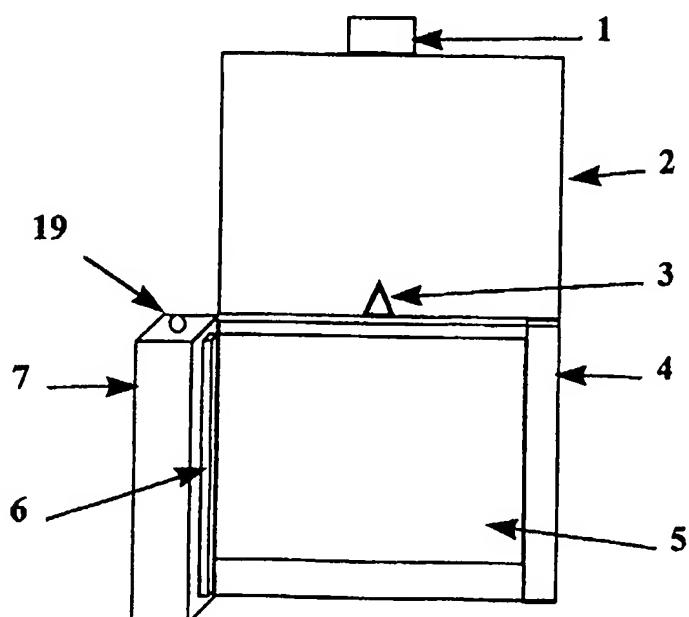
(58) Field of Search
UK CL (Edition V) G5C
INT CL⁷ G09F
Other: Online: EPODOC, WPI, JAPIO

(54) Abstract Title

Portable illuminated sign

(57) A portable illuminated sign, comprises an acrylic panel 5 housed in a carry case which also houses a power supply (15 figure 1), which via a switch assembly (16 figure 1) supplies power to a printed circuit board (20 figure 1) on which is mounted an array of light emitting diodes (LED'S) (14 figure 1) which emit their light through the length of the acrylic panel. The acrylic panel may display either a permanent message that has been engraved on the panel or have vinyl decals on its surface; or alternatively a non-permanent message can be hand written using a marker pen 12. The circuit board can contain circuitry to advise the user when the power supply is near its discharge level, before switching the power supply off. The carry case may be configured to be hand held, or hung by an internal loop 13 or be self supporting.

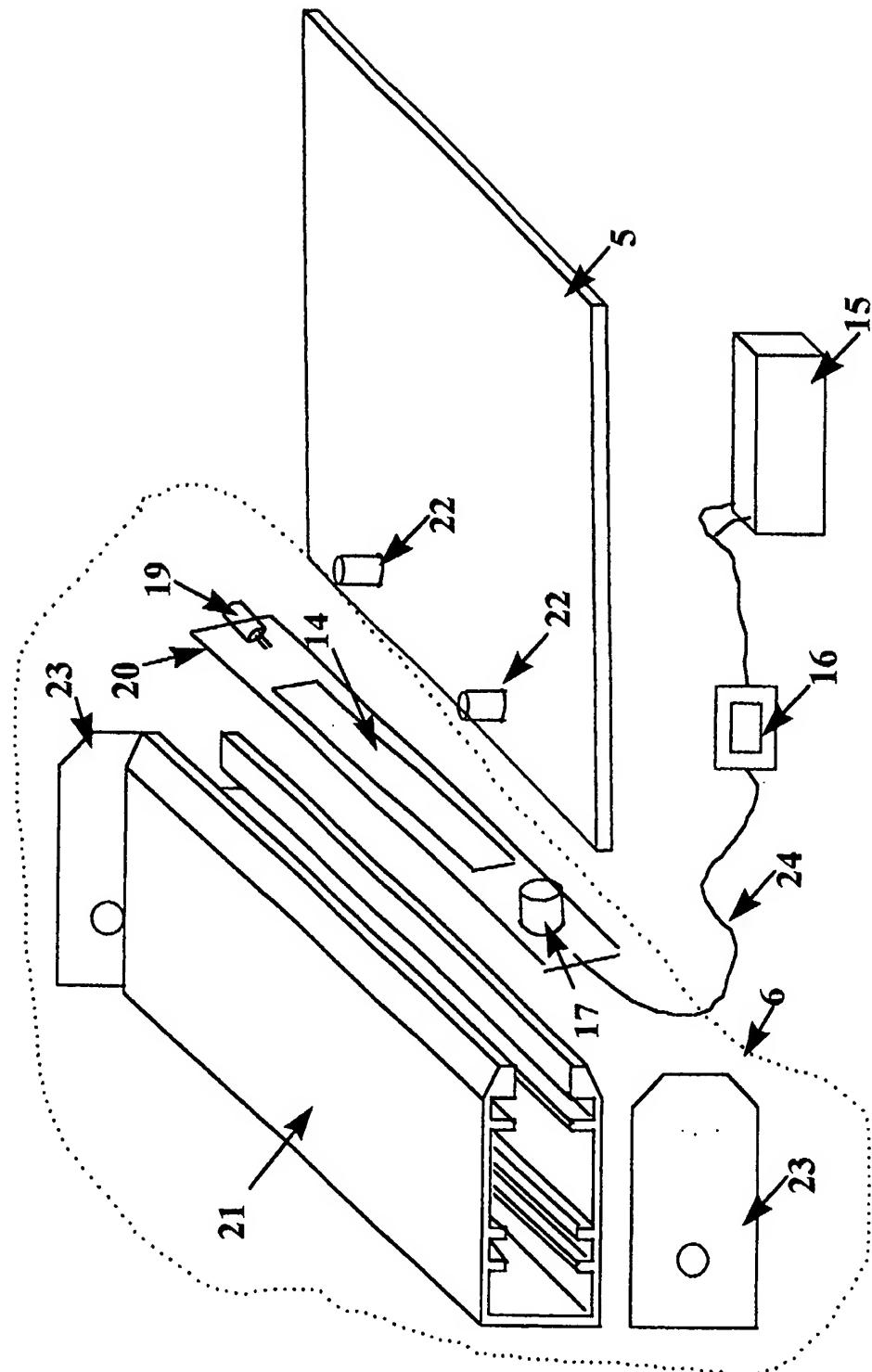
FIGURE 2



GB 2 386 460 A

1/3

FIGURE 1



2/3

FIGURE 2

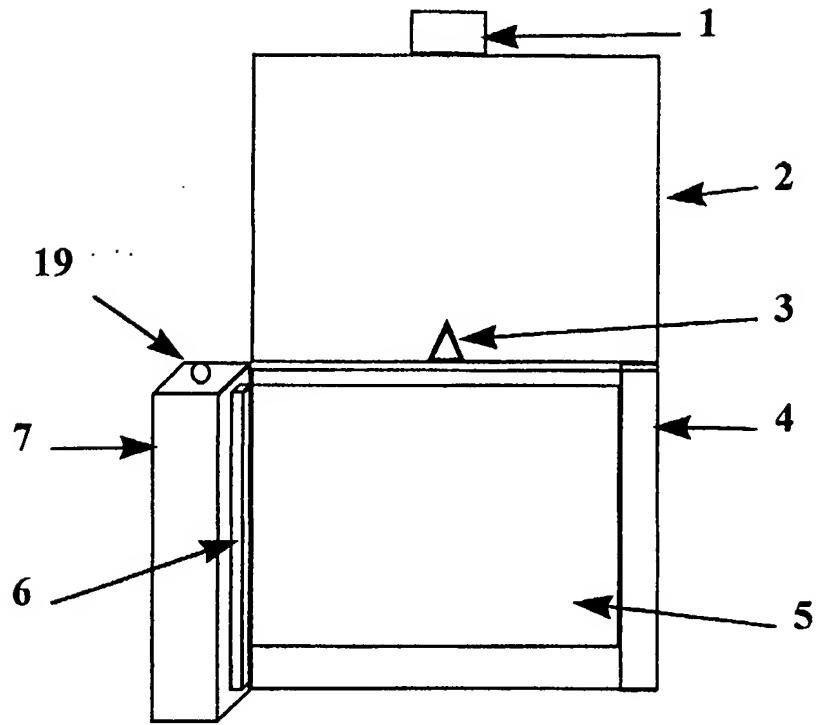


FIGURE 3

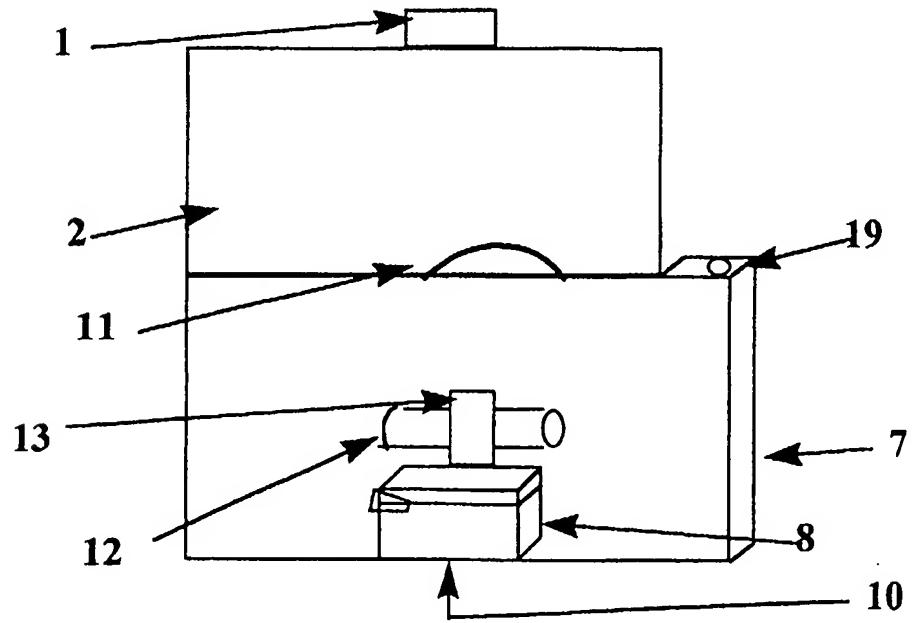
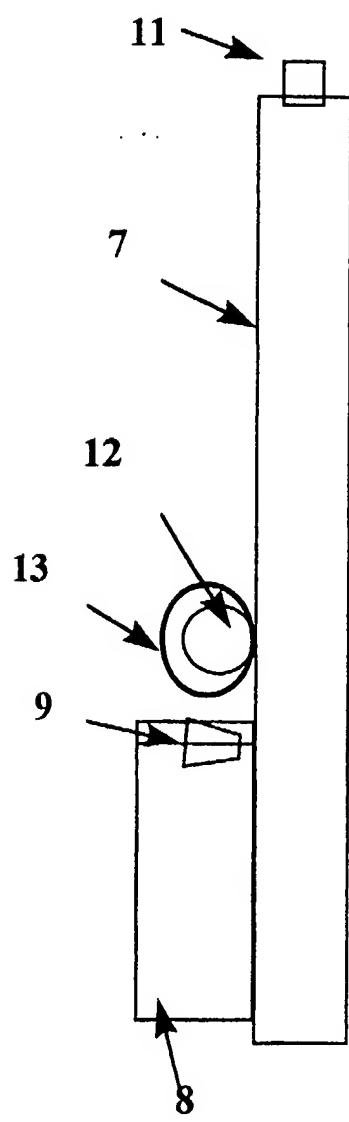
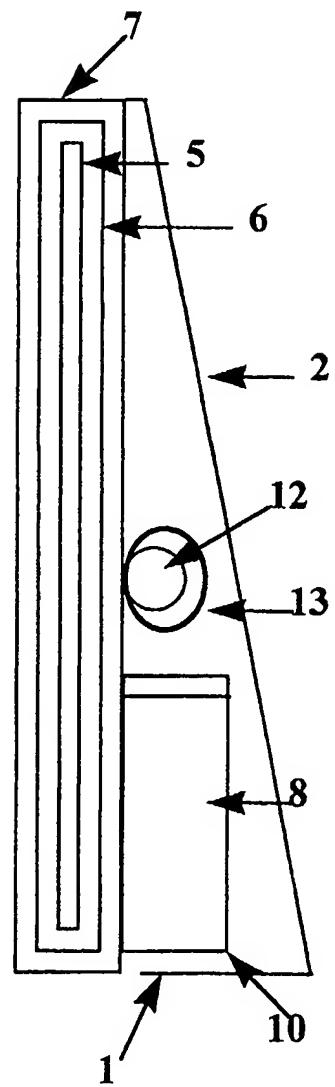


FIGURE 4**FIGURE 5**

Portable Illuminated Sign

Traditionally if you require to attract a stranger's attention at a designated meeting place, for example an airport, you would write the name and possibly a message on a card or piece of paper and hold it up until the person responds.

This method, although effective, can be improved. The message displayed does not always stand out as required to attract attention due to the colour of the paper card or pens.

The invention is a portable illuminated sign upon which a name, logo or message can be displayed. As with a card or piece of paper, the sign can be written on to provide the message but in addition the message can be erased and a new one added as and when required. As the sign is illuminated, the message is highly visible in both day and night applications.

Accordingly, this invention provides a method of displaying an illuminated message. The message can be erased and a new one added when required. The message can be illuminated in a variety of colours by changing the pen colour or the edge light colour.

Figure 1 Light unit and display.

Figure 2 Front view with the bag flap open.

Figure 3 Rear view with the bag flap open.

Figure 4 Right hand side view with the bag flap closed.

Figure 5 Bag flap open and used to support the unit in a tabletop mode.

The sign, consisting of the light unit 6 and the Perspex display 5, are held in a fabric carrying case.

In this example the light unit 6 contains arrays of Light Emitting Diodes 14 on a printed circuit board 20. Powered by a rechargeable battery 15, via a power switch 16 and fuse 17, a regulator 18 is provided on the PCB 20 to prevent the battery 15 from discharging below the manufacturers specified level. A circuit is also provided to illuminate an additional Light Emitting Diode to provide a battery discharge-warning indicator 19.

The PCB 20 slides into the light unit body 21 along with the Perspex display 5, the display 5 having two dowels 22 to hold it into position. Two end caps 23 are fitted securing all the components. The end caps 23 have a hole, on one side this is used for the power cable 24 to pass through and on the other side the battery discharge warning indicator 19 can be viewed.

The light unit 6 fits into the light unit pocket 7 and an elastic strip 4 supports the other side of the Perspex display 5. The front flap 2 of the bag can then be folded over the display 5 and held closed by the Velcro tab 1 connected to the Velcro fastener 10 fitted under the battery and switch pocket 8.

With the front flap 2 closed the sign can be carried using the bag handle 11, the display 5 being protected by the front flap 2 from incidental damage. The front flap 2 may also be folded backwards and the Velcro tab 1 connected to the Velcro fastener 10. With the front flap 2 in this position the unit can be stood up in its operational mode for tabletop operation, supported by the loop 13 or held by hand.

The unit is powered by battery 15, which fits into the pocket 8 along with the power switch 16, the pocket has a zip fastener 9. Directly above the battery pocket 8 is a marker pen 12 held to the carrying bag by an elastic loop 13. The marker pen 12 is used to write the desired message to be illuminated on the display 5.

CLAIMS

1. A portable illuminated sign, housed in a carry case and including a power supply, which via a switch assembly supplies power to a printed circuit board, this printed circuit board holds a light source of an array of light emitting diodes, this light source emits its beam through the length of an acrylic panel.
2. A portable illuminated sign as claimed in claim 1 where the acrylic panel can display either a permanent message by either being engraved or having vinyl decals on its surface and/or a non-permanent message which can be hand written using a marker pen.
3. A sign as claimed in claim 1 where the printed circuit board can contain circuitry which will advise the user when the power supply is nearing its recommended discharge level before switching the power supply off when this level is reached.
4. A sign as claimed in claim 1 where when in use the carry case can be configured to be hand held.
5. A sign as claimed in claim 1 where when in use the carry case can be configured to be hung by an internal loop.
6. A sign as claimed in claim 1 where when in use the carry case can be configured to be self supporting.



INVESTOR IN PEOPLE

Application No: GB 0201341.5
Claims searched: 1 - 6

Examiner: H Gupwell
Date of search: 9 July 2003

Patents Act 1977 : Search Report under Section 17

Documents considered to be relevant:

Category	Relevant to claims	Identity of document and passage or figure of particular relevance	
X, Y	X: 1 - 3. Y: 4 - 6.	JP 11105488 A	(SODEN) see figures 1 - 7 and WPI abstract.
X, Y	X: 1 - 3. Y: 4 - 6.	JP 8146895 A	(TAKARADA) 1996-06-07 (see figures 1 - 8 and WPI abstract accession No 1996-325307 [33]).
Y	4 - 6.	DE 29922617 U	(WAHL) 2000-02-24 (see figures 1- 5 and WPI abstract accession No 2000-284743 [23]).
Y	1 - 6.	GB 2362022 A	(BEVERLY) see figures 1 & 2 and lines 4 - 11 page 1 and lines 12 & 13 page 5.
Y	1 - 6.	GB 2316216 A	(MORTON) see figures 1 - 3 and lines 6 - 17 page 1, 6 - 9 page 2, 3 - 7 page 3 and 22 page 5 to 4 page 6.
A		GB 2365961 A	(GRADUS)
A		GB 2382212 A	(EAST)

Categories:

X Document indicating lack of novelty or inventive step	A Document indicating technological background and/or state of the art.
Y Document indicating lack of inventive step if combined with one or more other documents of same category.	P Document published on or after the declared priority date but before the filing date of this invention.
& Member of the same patent family	E Patent document published on or after, but with priority date earlier than, the filing date of this application.

Field of Search:

Search of GB, EP, WO & US patent documents classified in the following areas of the UKC^v:

G5C.

Worldwide search of patent documents classified in the following areas of the IPC⁷:

G09F.

The following online and other databases have been used in the preparation of this search report:

Online: EPODOC, WPI, JAPIO.